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REMARKS

This Amendment is responsive to the Office Action dated November 5, 2004. All rejections and objections of the Examiner are respectfully traversed. Reconsideration and further examination is respectfully requested.

At paragraphs 1-3 of the Office Action, the Examiner rejected claims 1-57 under 35 U.S.C. 102(b) as being anticipated by Tony Ballardie and Jon Crowcroft in "Multicast-Specific Security Threats and Counter-Measures" ("Ballardie"). Applicants respectfully traverse this rejection.

Ballardie discusses certain reasons why multicasting may increase security risks in a communication network, a number of approaches to multicast security that have been developed, and an authorization infrastructure using authentication servers that support a technique for multicast group access control.

Nowhere in Ballardie is there disclosed or suggested any system or method in which a multicast access device acts as *a sole multicast receiver for a respective subscriber location having multiple subscriber devices, distributes multicast information received from a multicast distribution device to the multiple subscriber devices at its respective subscriber location, and acts to join and leave at least one multicast group on behalf of the subscriber devices at its respective subscriber location*, as in the present independent claims 1, 4, 15, 28 and 42. In contrast, Ballardie teaches a system using a hierarchy of certificate authorities and authentication servers, in which the authentication servers are used to create and maintain multicast certificates that are multicast group specific, and used to control access to a multicast group based on the certificate contents. See page 7, section 7 of Ballardie. Ballardie describes the use of the

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authentication servers by client systems wishing to join a multicast group on page 8 in section 7.2. If a client system is authenticated through by the authentication server of Ballardie, the authentication server produces an encrypted authorization stamp that is sent to the requesting client system. Ballardie explicitly states as follows under section 7.3 on page 8:

If a client is successful in obtaining an authorization stamp for a group  $G$ , or if the group is unrestricted, then it may proceed to join group  $G$ .

Thus Ballardie includes no hint or suggestion of even the need for or the desirability of having a multicast access device that acts as a sole multicast receiver for a respective subscriber location having multiple subscriber devices, distributes multicast information received from a multicast distribution device to the multiple subscriber devices at its respective subscriber location, and acts to join and leave at least one multicast group on behalf of the subscriber devices at its respective subscriber location, as in the present independent claims 1, 4, 15, 28 and 42.

For the reasons stated above, Applicants respectfully urge that Ballardie does not disclose or suggest all the features of the present independent claims 1, 4, 15, 28 and 42. Accordingly, Ballardie does not anticipate claims 1, 4, 15, 28 and 45 under 35 U.S.C. 102. As to the remaining claims, they each depend from either claim 1, 4, 15, 28 or 45, and are believed to be patentable over Ballardie for at least the same reasons. Reconsideration of all pending claims is respectfully requested.

Applicants have made a diligent effort to place the claims in condition for allowance. However, should there remain unresolved issues that require adverse action, it is respectfully

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requested that the Examiner telephone David A. Dagg, Applicants' Attorney at 978-264-6664 so that such issues may be resolved as expeditiously as possible.

For these reasons, and in view of the above amendments, this application is now considered to be in condition for allowance and such action is earnestly solicited.

Respectfully Submitted,

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Date

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